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#### ABSTRACT

This paper presents a scale to evaluate the social interactions between students with severe disabilities and nondisabled students in integrated settings. The Educational Assessment of Social Interaction (EASI) was developed to be used with relatively little training but still be sensitive to the following major dimensions of interactions: (1) role (initiate/acknowledge); (2) purpose (social or task related); (3) topography (on task, no active participation, isolate, aggressive behavior); and (4) descriptive information (who/activity). A sample data collection sheet is provided and explained as is the scoring protocol, with examples given for each dimension. A sample completed data sheet is also provided and interpreted. (DB)





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EASI 2 Social Interaction Scale, v. 6 November 1990

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## EASI 2 Social Interaction Scale, v. 6 November 1990

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## **EASI 2 Scale for Social Interaction**

November 1990 Revision

Beckstead & Goetz

Revision 6

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Date											Observer				
						Time Finish									
Setting				-											
		ND		SD	SCALE FOR SOCIAL INTERA										
		. 1	Α.	. 1	A	S	T	+	X	0	ς	Λ	-	WHO/ACTIVITY	
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3)	0-15														
4)	30-45														
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19)	0-15														
20)	30-45														
TOTALS:															

Role:

Initiation (score P, T, A)
Acknowledge initiation (score P, T, A)

Purpose: = Social interaction

Task related interaction

Topography: on task behavior

no active task participation

social isolation

self-stim

agress twd. others

mild inappropriate



## Literature Overview

Numerous coding systems have been devised for the measurement of social interactions between severely disabled and nondisabled students in the context of experimental research (Voeltz, et al., 1981; Tremblay, Strain, Henderson and Shores, 1980; Strain, Kerr and Ragland, 1979; Guralnick, 1980; Certo and Kohl, 1982; Stainback and Stainback, Note 1; Murata, Note 2). These investigators have varied widely in their theoretical frameworks for conceptualizing social interaction, and as a result, the specific categories of behavior coded in these systems reflect considerable variability from one report to another. Guralnick (1980), for example, scores social participation according to Parten's (1932) categories of unoccupied, solitary, onlooker, parallel, associative, and cooperative play. In contrast, Strain et al. (1979) score social behaviors as either motor-gestural or vocal-verbal, along with notation of positive and negative topographical features. Despite this variation, however, it appears that all systems code social interactions according to at least four major dimensions: 1) response form or topography, e.g., vocal-verbal and motorgestural (Strain et al., 1979); physical and verbal (Stainback et al., 1982); 2) aim or purpose of the interaction, e.g., parallel and cooperative play (Tremblay et al., 1980); 3) the affective climate of the interaction, e.g., positive or negative (Stainback et al., 1982; Guralnick, 1980; Strain et al., 1979); and 4) demographic and descriptor variables including sex, the initiator-receiver role dimension, one-to-one vs. small group interaction, adult vs. peer interactor, etc. These four dimensions would thus appear to provide a major starting point for development of any social interaction measurement system.

A second factor common to many of the observational coding systems reported in the literature is the substantial amount of time required to develop proficiency in using the instrument. Voeltz et al. (1981), for example, reports on



a training program for observers using her scale that includes numerous hours of training time for each observer before any actual observations are undertaken. Hamre-Nietupski, Nietupski, Stainback and Stainback (1982) also comment upon the necessity of practice with an observational system and the need for acceptable interrater reliability before a system is used in the classroom environment.

With the two considerations of developing a system sensitive to major interaction dimensions, and a system that can be used reliably with comparatively little training, the EASI was initially developed as a measurement tool for evaluating severely disabled and nondisabled student interactions in integrated settings and contexts (Goetz, Haring, & Anderson, 1986). The EASI 2 represents a further revision of this instrument that includes changes in the time sampling procedure used for data collection and elaboration of the category codes.

## Using the EASI

Data Collection Sheet and Instructions for Use. The EASI measures social interactions in terms of four major dimensions: 1) Role (Initiate/Acknowledge, scored as I/A); 2) Purpose (Social or Task related, scored as S/T); 3) Topography (On task, No active participation, Isolate, Aggressive behavior directed to others, Self stimulatory behavior or Mild Inappropriate, scored as +/x/0/c/\(\Lambda\)/ -); and 4) Descriptive information (Who/Activity, scored in anecdotal form). Specific definitions and scoring criteria for each of these categories are discussed in detail below.

Figure 1 presents a sample data collection sheet. Data collection follows a 15 seconds observe, 15 seconds record, time sampling format. Each horizontal row within an observational block (Rows 1-20) represents 15 seconds of observation of one student with severe disabilities and any

most column of the row is used to score the behavior of nondisabled interactors. The remaining columns in the row are used to score the behaviors of the severely disabled student under observation. All categories of behavior for both the nondisabled and disabled person(s) observed during each 15 second observation are scored according to criteria discussed below.

The leftmost column of numbers (:00-:15) represents the beginning and ending seconds of each observational interval. One set of observations (rows 1-10) thus represents a total of five 15-second observations, or 2-1/2 minutes of observed behavior and 5 total minutes spent observing and recording. The data sheet itself has a total of two separate 5 minute observational blocks, which may be used for two different students or two different observations of the same student. The data sheet also provides spaces to note the date, setting, and starting and stopping times of each observation.

<u>Scoring Protocol</u>. All categories which occur during an observational interval are scored for that interval according to the criteria listed below.

#### ROLE

I = Initiation Behavior. This category is used to note who initiates the interaction. An initiation is any cue or behavior directed from person A to person B resulting in social contact. Initiations set the occasion for a social or task related interaction response to occur and may be vocal/verbal or gestural in form. Eye contact may also serve as a form of initiation for severely physically disabled and/or nonverbal students. Inappropriate behaviors may also be used as initiations. Initiations may or may not be responded to. (Interactions with the data collector are are not scored and are ignored.)



Within a 15-second observation period, either a nondisabled or a severely disabled student may initiate an interaction. Only the <u>first</u> initiation (and the response to it) within a 15-second observation is scored.

Initiations should be scored in terms of <u>who</u> is doing the initiation: P (peer), T (teacher, paraprofessional, or other classroom staff such as therapists), or A (adult, but nonteaching staff such as store clerk, bus driver, principals, etc.). If the SD student himself initiates, simply fill in the box with (/).

### Examples of Initiations:

Teacher asks student if they would like a drink.

Teacher gives instructions to a group.

Student waves at peer.

Nonverbal student gazes and smiles as peer enters room (before peer initiates a greeting).

Student asks, "How's it going?"

Peer approaches and assists SD student to put on coat.

Student hits peer.

Student throws paper airplane at teacher.

Student reaches for food item in peer's lunch tray.

Student vocalizes distress as peers leave room without him.

<u>A = Acknowledgment</u>. Any response to an initiation, regardless of the form of the response. Acknowledgments may take appropriate or inappropriate forms and do not necessarily have to look "social". For example, if a nondisabled student says, "Push the door" and the severely disabled student pushes, an acknowledgment is scored. If the severely handicapped student kicks the nonhandicapped initiator, an acknowledgment is also scored, along with inappropriate behavior to others.



Only acknowledgments to the first initiation in an interval are scored. If no acknowledgment occurs, an N is scored and any other behavior categories that occur in that interval are recorded, i.e., if a student fails to acknowledge a greeting while she is engaged in self stimulation, N and  $\varsigma$  are both scored.

Acknowledgments are scored as P, T, A, or / just as initiations are scored. Examples of Acknowledgments

<u>Initiation</u>	<b>Acknowledgment</b>					
Peer assists SD student to find	SD student accepts/participates in					
correct page.	being helped.					
T. hands block to SD student.	SD student grasps block.					
Peer smiles at student.	Student laughs.					
T. asks question.	Student raises hand.					
SD student extends arm to touch	T. says, *Oh, you want to operate					
comm. switch.	the blender?"					

Note: For students who are nonverbal, have physical involvement that includes involuntary movement that may be misinterpreted as an initiation, or have communicative intent that is difficult to read, the observer is advised to observe the student for 10 minutes before scoring and to ask the teacher for assistance in clearly defining initiation/response for that student. In cases of two observers attempting reliability, a consensus concerning student initiation and response definition for scoring should be established before the EASI is used.

<u>PURPOSE</u>. The purpose of the interaction is scored <u>only</u> for the initiator of the interaction. The two categories of interactions are mutually exclusive, e.g., an interaction purpose must be either social or task related.

S = Social. A social interaction is one in which the major purpose of the interaction appears to be the interaction itself, i.e., there is no obvious "task" being accomplished other than social contact. Any interaction which does not



T. says, "Wow!"

meet the requirements of a task related interaction is automatically considered to be social. Recreational and leisure activities that occur as part of recess, lunch, "special friends" times, etc. are scored as social, even if there is a clear "task" focus, i.e., if, during recess, a peer pitches a kickball to a SD student, and the student kicks it, the initiation (pitching the ball) and acknowledgment (kicking it) are scored as social, rather than task related.

## **Examples of Social Interactions**

SD student looks at T. and pushes
over tower of blocks (leisure
activity).

T. asks, "How do you like that?"

Student smiles.

while strapping student in

wheelchair.

Peer says, "Your turn," while Students takes turn. playing U-NO.

Peer runs and pulls student's shoe

Student says, "Stop
that!"

<u>T = Task Related Interaction</u>. Any interaction in which the purpose is to accomplish an outcome that goes beyond social contact (except for recreational/leisure tasks). Task related interactions involve two people, but include exchanges of information that is not purely social in nature, and/or changes in environmental stimuli. If person A asks person B to do something, and person B does it, they have participated in a task related interaction.

## **Examples of Task Related Interactions**

T. says, "Time to clean up."Student begins putting items away.T. says, "What day is today?"Student answers (may be correct or incorrect).



S. looks at peer and frowns while trying to move wheelchair.

Peer says, "Oh, you want to go out?" and pushes wheelchair.

S. grabs pretzel from peer.

Peers lets go and says, "Wow, you're really hungry."

TOPOGRAPHY. These categories are mutually exclusive: a student is either on task for the 15 second interval, or employs one of the other categories of behavior. (As with initiations, only the first inappropriate topography observed in the interval is scored.) These categories are scored regardless of whether or not they occurred as part of the specific interaction occurring in this interval. These categories are also scored even if no interaction occurred in the interval.

<u>+ = On Task.</u> This category is used when the student is participating
appropriately in the ongoing activity, regardless of the nature of the activity.

Examples include participating appropriately in large or small group instruction, participating appropriately in recreational/recess activities, walking appropriately down the hall, eating in the cafeteria during lunch, etc.

X = no active task participation. This category is scored when the student is present at a task, but he is 1) not actively participating and 2) he is not displaying any of the other categories of inappropriate behavior. If a student is sitting in a geography class, for example, but is simply waiting at his desk and not reading, attending to the teacher, writing or making other specific task related responses, this category is used. (If a student is responding inappropriately, the specific inappropriate category is scored). This category is used for "down time"--the student is not making active task related responses, but also is not displaying inappropriate behaviors. Listening appropriately is considered on task, as is, for example, standing and waiting for a bus at a bus



stop. Sitting and waiting to have one's wheelchair pushed from the classroom to the recess yard is an example of down time.

O ■ Isolation. Isolation is defined as 10 consecutive seconds spent alone and not engaged in an appropriate isolate activity. Several types of isolation are possible. Voluntary isolation is not in response to any initiation, but rather occurs when the person deliberately removes himself from the opportunity to receive an initiation by walking away from others, turning his head to the wall, lying face down on the ground, etc. Isolation may also occur in response to a specific initiation, e.g., a student puts his head on the desk when asked a question. If isolation is a deliberate response to an initiation, isolation and acknowledgment are scored.

 $\Lambda = \text{Aggressive to Others}$ . Any inappropriate behavior of moderate or greater intensity directed to others. Topographies may include spitting, hitting, kicking, screaming, resisting assistance or contact, becoming passively floppy, etc.

c = Inappropriate to Self. Any self stimulatory or self abusive behavior falls into this category. Before observing a particular student, specific self-stimulatory or self-abusive behaviors should be noted.

- = Mild Inappropriate. These behaviors are inappropriate, but do not have the intensity or severity of aggression behaviors. Swearing, "sassing," taking items that do not belong to you, teasing are examples. Mild inappropriate behaviors differ from aggression behaviors in terms of intensity, e.g., an inappropriate finger flick toward another student is scored mild inappropriate; a deliberate slap on the arm is scored aggression.



## SUMMARY

Each row will have something scored. Interactions and their purposes may or may not occur; however, the On Task vs. all other Behaviors will always be scored for each interval.

#### Remember

- 1) Look for only 15 seconds.
- 2) Record for 15 seconds. If you finish recording before 15 seconds have passed, continue to look down at the page until the tape announces the start of the next interval.
- When you look up, wait for a <u>new</u> initiation before recording interactions; do not score an ongoing acknowledgment to an initiation that you did not see (i.e., student is obviously answering a question, but the question occurred before the interval started. Wait for the next initiation).
- 4) Score only the first initiation and acknowledgment in the interval.
- 5) For each interval, score + (on task), or one of the five possible other categories (Down time or one of the four categories of inappropriate behavior). Score only the first type of inappropriate behavior that is observed.
- 6) If logistics prevent you from being close enough to score who initiated/acknowledged, but it is clear an interaction has happened, score the I/A with a ?.
- 7) Use of the walkman is intrusive. Inform the principal in advance and ask him to make a brief announcement to teaching staff that you will be making some observations while wearing headphones. Teachers can then alert their students. Also, it is



suggested that you wear the walkman for 3-5 minutes before beginning to score so that students will be desensitized.

Sample Data Sheet. A sample of a completed data sheet is presented on page 13. These data were collected during group story time in a first grade classroom. In the first interval, Stephanie, the student with severe disabilities, listened with her peers and no interactions occurred. In the second interval, the teacher asked the class a question about the story and Stephanie raised her hand (although she was not called upon). In the third interval, the teacher suggested applauding the student who had responded and Stephanie clapped. No interactions occurred until 'the seventh interval, although Stephanie remained on task during this time. In the seventh interval, Stephanie leaned over and began tapping some nearby peers on the heads. The peers turned away; a social but mildly inappropriate interaction initiated by Stephanie was scored. In the ninth interval, the teacher announced recess time and Stephanie stood up from the floor. In the tenth interval, a peer asked Stephanie if she was going to play kickball; she shook her head no. A social interaction initiated by the peer was scored.

The totals for this five minute time period were thus four initiations from others (3 teachers and 1 peer) and 4 acknowledgements by the student with severe disabilities. The student with severe disabilities initiated one interaction that was acknowledged. Of the 5 total interactions, 3 were social in nature and two were teaching interactions. The student was appropriately on task for 9 of the 10 observed intervals and mildly inappropriate during 1 interval.

Development Data. Reliability of the EASI has been established.

Interrater reliability data were gathered on a sample of 17 students with severe disabilities (9 elementary age and 8 high school age students) attending 2 different integrated elementary schools and 2 different integrated high schools.



Date 5/9/90 Time Start 10:15 Observer Us

Teacher B. Boyer (Special class) Time Finish 10:25

Setting 1st grade reg. ed class

EASI SCALE FOR SOCIAL INTERACTIONS WHO/ACTIVITY X group listening to 0-15 1) Tacks? Stailes he 30-45 2) T. "Give a head" Sch 3) 0-15 listens to ston 30-45 4) 0-15 5) 30-45 6) taps peers on head u 7) 0-15 30-45 8) listens T: "Time for ruess 9) 0-15 P" play Kickbull?" 30-45 10) 0-15 11) 30-45 12) 13) 0-15 30-45 14) 15) 0-15 30-45 16) 0-15 17) 30-45 18) 0-15 19) 30-45 20) TOTALS:

(31)

(41)

Role: I = Initiation (score P, T, A)

A = Acknowledge initiation (score P, T, A)

Purpose: S = Social interaction

T = Task related interaction

Topography: + = on task behavior

X = no active task participation

0 = social isolation

z = self-stim

Λ = agress twd. others

mild inappropriate



Five CRI staff persons served as data collectors. The mean interrater reliability score was .958, with a range of .759 to 1.0. Data collection occurred in a variety of classroom, school, and community settings.

Pilot Data. Data from an initial group of 9 students with severe disabilities, ranging from Kindergarten to high school age, taken at 3 different school sites revealed the following, based on a data set of 31 observations (616 total observed intervals):

Interactions: 308 total reciprocal interactions, in which an initiation was acknowledged. Interactions initiated by others were acknowledged .86; of interactions initiated by students with severe disabilities, .73 were reciprocal. Of the 308 reciprocal interactions, 65% were social and 35% were teaching in nature. Overall, interactions occurred in 308 of the 616 observed intervals, or approximately 50% of the time.

Topography: Of the 616 total observed intervals, over 70% were scored as on task. Approximately 14% were scored as mild inappropriate; the remaining categories were all scored less than 10% each during the observations.

These pilot data suggest the EASI does in fact capture many descriptive features of social interactions; for example, in this sample, it appears students with severe disabilities were somewhat more responsive to initiations than their nondisabled peers. The absence of normative information concerning "typical" interactions, however, limits the inferences that can be made.



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